

Sample D. Symon 8/27/74  
the convex pattern or the concave surface of the concave pattern is shaped substantially circular in the direction of the signal beam or the reference beam incident on the holographic recording medium.

According to this preferred aspect of the present invention, since  
5 inclined surfaces are formed over 360 degrees, it is possible to reliably remove noise components present over 360 degrees about the optical axis.

In another preferred aspect of the present invention, the convex surface of the convex pattern or the concave surface of the concave pattern is shaped to be band-like in the direction of the signal beam or the  
10 reference beam incident on the holographic recording medium.

According to this preferred aspect of the present invention, since the convex surface of the convex pattern or the concave surface of the concave pattern is constituted by continuous flat surfaces, the amount of shift can be reduced in comparison with a discrete convex pattern and the degree of  
15 multiplexing can be increased in shift multiplexing.

The above and other objects and features of the present invention will become apparent from the following description made with reference to the accompanying drawings.

## 20 BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a schematic diagram showing the principle of the holographic recording and reproducing that is a preferred embodiment of the present invention.

Figure 2 is a schematic cross-sectional view showing a holographic  
25 recording medium that is a preferred embodiment of the present invention.

Figure 3 is a schematic perspective view showing a convex pattern formed on a track.

Figure 4 is a block diagram of a holographic recording and reproducing apparatus for performing holographic recording and reproduction that is a preferred embodiment of the present invention.

Figure 5 is a block diagram showing the configuration of an optical pickup.

Figure 6 is a schematic perspective view showing another example of a convex pattern 103.

Figure 7 is a schematic diagram showing the principle of the holographic recording and reproducing that is another preferred embodiment of the present invention.

Figure 8 is a schematic diagram showing the principle of the holographic recording and reproducing that is a further preferred embodiment of the present invention.

## DESCRIPTION OF THE PREFERRED EMBODIMENTS

Figure 1 is a schematic diagram showing the principle of the holographic recording and reproducing that is a preferred embodiment of the present invention and Figure 2 is a schematic plan view showing a holographic recording medium that is a preferred embodiment of the present invention.

As shown in Figure 1, a holographic recording medium 101 according to this embodiment includes a light transmission layer 101a, a recording layer 101b, an intermediate layer 101c, a reflective layer 101d and a protective layer 101e in this order.

The light transmission layer 101a serves as a substrate for physically and chemically protecting the recording layer and ensuring mechanical strength required for the holographic recording medium 101.